



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,949	03/15/2004	Shinichi Shirahama	8305-239US (NP149-1)	4470

570 7590 10/31/2007
AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
----------	--------------

1797

MAIL DATE	DELIVERY MODE
-----------	---------------

10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/800,949

Applicant(s)

SHIRAHAMA ET AL.

Examiner

Ellen M. McAvoy

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazato et al (6,569,818) in combination with Griffith (5,552,068).

Applicants' arguments filed 02 August 2007 have been fully considered but they are not persuasive. As previously set forth, Nakazato et al ["Nakazato"] disclose a lubricating oil composition having a low phosphorus (P) content of 0.01 to 0.1 weight %, and a sulfated ash of 0.1 to 1 weight %, which is comprised of (a) a major amount of mineral base oil having a low sulfur (S) content of at most 0.1 weight %, (b) an ashless alkenyl or alkyl-succinimide dispersant or derivative thereof in an amount of 0.01 to 0.3 weight % in terms of nitrogen atom content, (c) a metal-containing detergent such as an overbased alkaline earth metal salt of an alkylsalicylic acid in an amount of about 0.2 to 7 weight %, (d) a zinc dialkyl-dithiophosphate in an amount of 0.01 to 0.1 weight % in terms of a phosphorus content, and (e) an oxidation inhibitor. Nakazato teaches that the lubricating oil composition may be used in internal combustion engines such as diesel engines equipped with an exhaust gas after-treatment system. See column 2, line 25 to column 3, line 59. Applicants' open-ended claim language "comprising" allows for the addition of other additives to the oil compositions such as the oxidation inhibitor component of the prior art. Nakazato teaches that the lubricating oil compositions may contain other auxiliary additives

Art Unit: 1797

such as phosphoric acid esters, phosphorous acid esters and organic amide compounds such as oleylamide. Nakazato teaches that the additives can be incorporated into the lubricating oil compositions in an amount ranging from 0.001 to 3 weight %. See column 7, line 59 to column 8, line 11. Applicants' invention set forth in independent claims 1 and 2 has been amended to include that component (D), the phosphorus-containing ashless anti-wear agent, is selected from the group consisting of amine salts of phosphoric acid esters and amine salts of phosphorus acid esters. However, such amine phosphate salts are known in the art as extreme pressure/anti-wear agents as evidenced by Griffith.

Griffith discloses a lubricating oil composition having balanced antiwear/extreme pressure and stability properties while providing friction reduction which comprises (1) a major amount of a lubricating oil basestock, and (2) a minor amount of an amine phosphate salt of formula (I) which is set forth in column 1, lines 45-50. Griffith teaches that the composition may be used as an automotive lubricating oil and that the amine phosphate may be present in an amount of from 0.01 to 10 weight %. Having the prior art references before the inventors at the time the invention was made it would have been obvious to have added the amine phosphate salt of Griffith to the oil composition of Nakazato if the additive's known imparted properties were so desired.

Applicants argue that:

"Nakazato does not teach or suggest that the composition may contain the claimed amine salts as phosphorus-containing ashless anti-wear agents, i.e., component (D), and thus does not teach or suggest all of the claimed elements. As demonstrated in the Kurihara Declaration and discussed above, the inclusion of an amine salt of a phosphoric acid ester or of a phosphorus acid ester in the lubricating oil composition provides improved anti-wear properties and high temperature detergency, despite the low ash content."

This is not deemed to be persuasive because, as evidenced by Griffith, amine salts of phosphorus acid esters are known in the art to act as extreme pressure agents and as anti-wear agents in lubricating oil compositions. The results set forth in the Declaration have been carefully considered; however, it would be expected that differing anti-wear agents (phosphites and amine phosphate salts) would have differing results in anti-wear performance. The examiner is of the position that the results presented are not sufficient to rebut the established *prima facie* case of obviousness.

Claim Rejections - 35 USC § 103

Claims 1-3, 5, 6 and 8 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Yagishita et al (6,306,801) in combination with Nakazato et al (6,569,818) and Griffith (5,552,068).

Applicants' arguments filed 02 August 2007 have been fully considered but they are not persuasive. As previously set forth, Yagishita et al ["Yagishita"] disclose a lubricating oil composition suitable for use as a diesel engine oil which comprises a major amount of a lubricating base oil selected from mineral oils and synthetic oils and, as additives, (A) 0.5 to 20% by mass of acylated bissuccinimide, (B) 0.05 to 0.3 % by mass of zinc dithiophosphate in terms of the phosphorus content, and (C) 0.5 to 4.0 % by mass of metallic detergent in terms of the sulfated ash content, based on the total mass of the composition. See column 1, line 43 to column 2. Yagishita teaches that the metallic detergent component may be an overbased alkaline earth metal salicylate having a total base number of 100 to 450 mgKOH/g. See column 9.

Applicants' invention differs by adding a phosphorus-containing ashless antiwear agent and, in dependent claim 2, by adding a fatty acid amide to the lubricating oil compositions. However, Yagishita allows for the addition of known additives to the compositions including antiwear agents. As set forth above, Nakazato teaches that the lubricating oil compositions, which are suitable for use as diesel engine oils, may contain other auxiliary additives such as phosphoric acid esters, phosphorous acid esters and organic amide compounds, such as oleylamide, in amounts ranging from 0.001 to 3 weight %. The examiner maintains the position that it would have been obvious to the skilled lubricating oil formulator to have added any conventional engine oil additive to the lubricating oil compositions of Yagishita if the known imparted properties were so desired. Applicants' invention set forth in independent claims 1 and 2 has been amended to include that component (D), the phosphorus-containing ashless anti-wear agent, is selected from the group consisting of amine salts of phosphoric acid esters and amine salts of phosphorus acid esters. However, such amine phosphate salts are known in the art as extreme pressure/anti-wear agents as evidenced by Griffith.

Griffith discloses a lubricating oil composition having balanced antiwear/extreme pressure and stability properties while providing friction reduction which comprises (1) a major amount of a lubricating oil basestock, and (2) a minor amount of an amine phosphate salt of formula (I) which is set forth in column 1, lines 45-50. Griffith teaches that the composition may be used as an automotive lubricating oil and that the amine phosphate may be present in an amount of from 0.01 to 10 weight %. Having the prior art references before the inventors at the time the invention was made it would have been obvious to have added the amine phosphate salt

Art Unit: 1797

of Griffith to the oil composition of Yagishita if the additive's known imparted properties were so desired.

Applicants argue that:

"Nakazato does not teach or suggest that the composition may contain the claimed amine salts as phosphorus-containing ashless anti-wear agents, i.e., component (D), and thus does not teach or suggest all of the claimed elements. As demonstrated in the Kurihara Declaration and discussed above, the inclusion of an amine salt of a phosphoric acid ester or of a phosphorus acid ester in the lubricating oil composition provides improved anti-wear properties and high temperature detergency, despite the low ash content."

This is not deemed to be persuasive because, as evidenced by Griffith, amine salts of phosphorus acid esters are known in the art to act as extreme pressure agents and as anti-wear agents in lubricating oil compositions. The results set forth in the Declaration have been carefully considered; however, it would be expected that differing anti-wear agents (phosphites and amine phosphate salts) would have differing results in anti-wear performance. The examiner is of the position that the results presented are not sufficient to rebut the established *prima facie* case of obviousness.

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1797

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

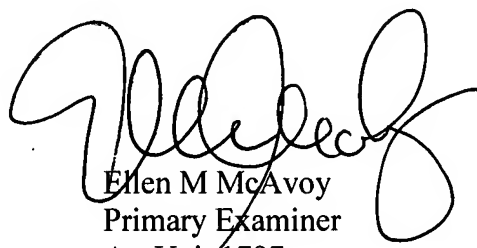
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

Art Unit: 1797

like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ellen M McAvoy
Primary Examiner
Art Unit 1797

EMcAvoy
October 22, 2007